Overdiagnosis by Information Overload

Self-diagnosis, health anxiety, and the clinical visit as a validation encounter

María Noel Arana

Medical Doctor (MD), Specialist in Pediatrics and Neonatology

ORCID: 0009-0001-8410-7176

Mariano Enrique Torres Ponce

Lawyer (LL.B.), Specialist in Computer Law

ORCID: 0009-0009-6284-3867

Sandra Susana Arroyo Giuliani

Psychologist, Specialist in Clinical Psychology

ORCID: 0009-0005-6428-1125

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Abstract

The widespread availability of medical information has transformed how symptoms are interpreted, how uncertainty is experienced, and how clinical encounters are structured. While access to health information is often framed as an unequivocal benefit, its excess has generated new clinical dynamics that challenge traditional models of diagnosis, communication, and professional responsibility. This work examines medical information overload as a structural condition of contemporary healthcare and analyzes its role in the emergence of self-diagnosis, health anxiety, and overdiagnosis.

We argue that overdiagnosis in this context cannot be adequately explained by technological availability, patient behavior, or professional practice in isolation. Instead, it emerges as a relational outcome produced by the interaction between information overload, anxiety, and a transformed clinical encounter increasingly oriented toward validation rather than exploration. Central to this transformation is the construction of preformed diagnostic narratives that precede consultation and shape expectations, risk perception, and diagnostic demand.

Pediatrics is examined as a critical scenario in which these dynamics become particularly visible. The mediated nature of symptom narration, developmental variability, and caregiver responsibility amplify the effects of information overload, frequently converting the pediatric visit into a validation encounter. Parallel dynamics are identified in adult medicine, where self-diagnosis and health anxiety drive exclusion-oriented consultations and diagnostic escalation.

The analysis integrates clinical, psychological, technological, and legal perspectives. Psychological mechanisms such as anxiety amplification, cognitive bias, and narrative coherence are examined alongside the legal implications of validation encounters for professional responsibility and reasonable expectations. Technologies are analyzed as informational intermediaries that intensify, rather than originate, these processes.

By framing overdiagnosis as an emergent property of altered clinical relationships rather than as a technological side effect, this work offers a conceptual foundation for adaptive clinical strategies. These strategies emphasize proportional risk framing, ex-

plicit management of uncertainty, and preservation of the interpretative function of the clinical encounter.

Keywords

overdiagnosis, medical information overload, validation encounters, diagnostic narratives, clinical uncertainty, health anxiety, pediatric decision making, professional responsibility, medical liability, digital mediation in healthcare

Executive Summary

Background: Over the past decade, the circulation of medical information has expanded beyond clinical settings and into everyday life, reshaping how symptoms are interpreted, risks are perceived, and care is sought. Digital platforms, health portals, audiovisual content, and algorithmically curated narratives now participate actively in the formation of diagnostic expectations well before clinical contact occurs. This shift has altered the clinical encounter itself. Rather than arriving with open questions, patients and caregivers increasingly present preconstructed explanations that seek confirmation or exclusion. In pediatrics and adult medicine alike, this transformation places new pressure on clinical reasoning, professional authority, and responsibility, particularly in settings where uncertainty is poorly tolerated and reassurance is expected to function as closure.

Gap: Existing analyses of overdiagnosis tend to emphasize technological factors such as test availability, imaging sensitivity, or screening expansion. While these elements matter, they do not fully explain patterns observed in routine practice, where diagnostic escalation often precedes testing decisions rather than following them. Legal and ethical frameworks show a similar limitation. Responsibility is usually approached through discrete acts, assuming identifiable causal links between decisions and harm. What remains insufficiently addressed is how overdiagnosis emerges from relational dynamics shaped by information overload, anxiety, and narrative stabilization. Pediatric care exposes this gap with particular clarity, as developmental variability, parental responsibility, and mediated symptom narration amplify the effects of informational saturation in ways that existing models capture only partially.

Purpose: This article reframes overdiagnosis as a relational outcome rather than as a purely technological or individual failure. It examines how validation encounters, understood as situations in which clinicians are asked to confirm externally constructed diagnostic narratives, reorganize clinical interaction, redistribute responsibility, and generate pressure toward exclusion-oriented care. Building on prior work on digital mediation and clinical responsibility, the analysis integrates medical, legal, and psy-

chological perspectives to clarify where current assumptions fail and why responses focused solely on testing restraint or information control remain insufficient.

Methodology: We adopt a conceptual and practice-based approach grounded in interdisciplinary analysis and longitudinal clinical observation. Our reading synthesizes medical literature on overdiagnosis, health anxiety, and clinical communication with legal doctrines concerning liability, consent, and professional responsibility. Pediatric and adult scenarios are used as illustrative patterns rather than formal case studies, as they reflect recurring situations encountered across outpatient and hospital settings in Argentina, Spain, and the United Kingdom, with additional reference to comparable dynamics observed in the United States. We also draw on our earlier work on digitally mediated responsibility to situate validation encounters within broader relational and infrastructural contexts shaped by information abundance. This is not an empirical prevalence study. It is a structured interpretation of how narratives, anxiety, and accountability interact in routine care.

Results: The analysis indicates that overdiagnosis frequently originates upstream, before diagnostic tools are deployed. Preformed diagnostic narratives lower tolerance for uncertainty and elevate demands for confirmation, reorganizing consultations around exclusion rather than interpretation. Clinicians respond not only to symptoms but also to anxiety, relational expectations, and perceived legal exposure. In pediatrics, these dynamics are intensified by parental protective responsibility and developmental ambiguity. In adult medicine, similar patterns appear through health anxiety and repeated exclusion-oriented visits. Legal analysis shows that responsibility tends to concentrate on clinicians, while external information sources recede from causal consideration, encouraging defensive practices that may paradoxically increase harm. Psychological analysis confirms that anxiety functions as a central mediator, reinforced rather than resolved through validation and repeated reassurance.

Conclusion: Overdiagnosis in contemporary medicine cannot be reduced to a technological side effect alone. It emerges from altered interactions between information environments, human cognition, and professional authority. Addressing it requires restoring the interpretative function of the clinical encounter, clarifying the boundaries of professional endorsement, and developing legal frameworks that recognize relational dynamics rather than isolated acts. In practice, we have found that effective responses rarely depend on restricting access to information or delegitimizing patient concern. They depend on strengthening clinical judgment, proportional risk communication, and deliberate management of uncertainty over time. As medical practice continues to operate within increasingly saturated informational landscapes, preserving its integrity will depend on reaffirming interpretation over confirmation and care over validation.

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Chapter 1

Introduction

The introduction that follows situates medical information overload as a defining condition of contemporary clinical practice. Rather than treating it as a secondary or contextual factor, we approach it as a structural transformation that reshapes how symptoms are interpreted, how uncertainty is experienced, and how clinical encounters are initiated. This framework provides the basis for understanding self-diagnosis, validation demands, and overdiagnosis as relational outcomes rather than isolated deviations.

This article advances a relational framework for understanding overdiagnosis in information-saturated clinical environments. It introduces the concept of validation encounters to describe a recurrent but underexamined mode of clinical interaction, in which externally constructed diagnostic narratives are brought into the consultation and acquire professional significance through communication rather than through diagnostic acts.

1.1 Information overload as a structural condition of care

Over the last decades, access to medical information has expanded beyond any historical precedent. Clinical knowledge that was once mediated almost exclusively through professional consultation is now encountered continuously through digital environments that are available at any hour and largely detached from clinical context (McMullan, 2006; Lupton, 2013). This shift has influenced how patients and caregivers seek information and also how they interpret symptoms, judge risk, and assign meaning to illness (Lupton, 2015; Topol, 2015).

We use the term medical information overload to describe a condition in which the volume of health-related content exceeds a person's practical ability to rank rele-

vance, probability, and clinical significance. This overload is not reducible to misinformation. It often arises from the coexistence of accurate statements, partial explanations, and decontextualized descriptions within the same search and reading pathway (McMullan, 2006). In that setting, factual correctness is compatible with interpretative error.

In clinical practice, the consequences are visible before the consultation begins. Information overload shapes expectations and influences how symptoms are narrated and emotionally weighted. Patients arrive having already performed a form of interpretative work. What they bring is not merely a question, but a provisional explanation that can feel settled even when the underlying evidence is thin. The consultation inherits that framing.

The effect is present across medical fields, yet it becomes especially salient in primary care, pediatrics, and acute settings, where symptoms are commonly nonspecific and uncertainty is unavoidable. Patients and caregivers are not seeking information in itself. They are seeking something closer to clinical judgment, but they receive content that lacks the probabilistic and contextual scaffolding that clinicians use in everyday reasoning (Gigerenzer & Edwards, 2003; Gigerenzer et al., 2007). The resulting mismatch drives a large portion of the friction that follows.

1.2 From access to information to the construction of diagnostic narratives

In contemporary information environments, medical content is rarely consumed as isolated reading. It accumulates. People move across sources, collect fragments, and gradually assemble them into coherent narratives that explain what is happening and what should be feared. Repetition matters. Exposure across platforms gives convergence a persuasive force, even when the sources are derivative or based on the same underlying simplifications (Lupton, 2015).

We refer to this process as the construction of preformed diagnostic narratives. These narratives follow recognizable cognitive tendencies. Explanations that offer causal clarity and a sense of control are often preferred over probabilistic accounts, particularly when uncertainty is uncomfortable (Kruglanski & Webster, 1996). Rare but severe conditions become salient through memorability and narrative intensity, while benign explanations may be experienced as evasive or superficial, even when they are clinically more plausible (Gigerenzer et al., 2007).

Narrative form reinforces this effect. Stories, experiential accounts, and vivid cases tend to be more persuasive than abstract statistical framing, and they are easier to re-

call during moments of worry (Kleinman, 1988; Shapiro, 2011). Once a narrative feels internally coherent, it can resist correction. Differential diagnosis and base-rate reasoning struggle to compete with an explanation that feels complete, especially when the person has invested time and attention in building it (Gigerenzer & Edwards, 2003).

For that reason, self-diagnosis is often not experienced as speculation. It is experienced as informed reasoning. Patients and caregivers may approach the consultation as if they have already completed preliminary clinical work, then ask the clinician to confirm or exclude what has been constructed. This stance changes the encounter before the first question is asked.

1.3 The transformation of the clinical visit into a validation encounter

The clinical visit has often been described as a space of exploration. Symptoms are presented, hypotheses are generated, and meaning is built through interaction between patient and professional. Under conditions of information overload, that sequence is frequently reversed.

Patients and caregivers increasingly arrive with a defined hypothesis and an expectation attached to it. The encounter becomes oriented toward confirmation or exclusion of a preexisting narrative. We call this configuration the validation encounter.

In the validation encounter, the clinician is positioned less as an investigator and more as a reviewer of external content. The professional is expected to endorse, refine, or formally dismiss a diagnosis that has already been cognitively adopted. This creates tensions that are easy to underestimate. Agreement can unintentionally stabilize an inaccurate belief. Disagreement can be experienced as dismissal, even when it is delivered with care.

In most cases, the dynamic is not adversarial. It is driven by anxiety and by the desire to reduce uncertainty. The demand for validation often reflects a protective impulse rather than a challenge to professional authority. Still, the structural shift remains. The consultation is pulled away from interpretative collaboration and toward a form of epistemic arbitration, with consequences for trust, testing patterns, and communication burden (Bensing, 2000; Elwyn et al., 2016).

1.4 Scope, objectives, and interdisciplinary approach

This work examines medical information overload as a determinant of overdiagnosis, anxiety, and transformation of the clinical encounter. We focus on pediatrics as a central and particularly sensitive scenario, given the mediated nature of symptom narration and the emotional responsibilities of caregiving. We also extend the analysis to adult patients, where health anxiety and self-diagnosis follow parallel but distinct trajectories (Starcevic & Berle, 2014; McElroy & Shevlin, 2014).

The medical perspective provides the core of the argument. Pediatric and general clinical practice supply the conceptual foundation and the everyday reality against which our claims are tested. Psychological contributions are integrated to clarify mechanisms of symptom interpretation and anxiety amplification, especially where reassurance fails and searching becomes repetitive (Starcevic & Berle, 2014; McElroy & Shevlin, 2014). The legal perspective frames responsibility, reasonable expectations, and professional risk in digital health environments, with particular attention to how endorsement and documentation acquire new weight under validation pressures.

Although the coordinating voice of this work is legal and technological in formation, the argument is anchored in clinical reality. We treat information overload not as a technological problem but as a relational and epistemic one. Our objective is not to discourage access to information. It is to understand how excess information reshapes medical practice, clinical communication, and the allocation of responsibility across actors.

We argue that overdiagnosis in this context emerges from a transformed interaction between information, anxiety, and professional authority rather than from isolated individual error. Preserving the integrity of the clinical encounter requires acknowledging this shift and responding to it with clinical, communicational, and juridical clarity (Moynihan et al., 2012; Wegwarth & Gigerenzer, 2013).

Chapter 2

Medical information, uncertainty, and clinical practice

Medical practice has always unfolded under conditions of uncertainty. Symptoms rarely present as fixed entities, and diagnosis seldom follows a linear path from complaint to conclusion. What has changed in recent years is not the presence of uncertainty, but the context in which it is encountered. Medical information overload alters how uncertainty is perceived, processed, and tolerated before the clinical encounter even begins. Rather than being negotiated primarily within the consultation, uncertainty is increasingly preconfigured outside it, shaping expectations, risk perception, and diagnostic demand in advance (Cassell, 2004; Bensing, 2000).

This chapter develops the argument that the central problem does not lie in uncertainty itself, which is intrinsic to medicine, but in the weakening of the professional frameworks that traditionally allowed uncertainty to be interpreted and communicated. Excess information disrupts these frameworks by offering apparent certainty without proportional judgment, leaving clinicians to manage not only symptoms, but also preassembled interpretations.

2.1 Uncertainty as an inherent component of medical care

Uncertainty is not a failure of medical practice. It is one of its constitutive conditions. Clinical reasoning operates in probabilistic terms, where symptoms are interpreted within ranges of normal variation, developmental stages, and contextual factors. Absolute certainty is uncommon, particularly in early presentations and in primary care settings (Gigerenzer & Edwards, 2003).

In pediatrics and general medicine, uncertainty is especially visible. Children fre-

quently present symptoms that are transient, nonspecific, or developmentally dependent. Adults often report bodily sensations that fluctuate over time without pathological significance. In both groups, the clinician's task extends beyond identifying disease. It includes distinguishing between what requires intervention and what can be safely observed.

Medical training offers tools designed to work within this uncertainty. Differential diagnosis, awareness of prevalence, and longitudinal follow-up allow incomplete information to be managed over time. The clinical encounter has traditionally served as the space where uncertainty is shared, contextualized, and rendered tolerable through explanation and monitoring rather than immediate resolution (Cassell, 2004).

When uncertainty is accepted as part of care, it supports proportional decision-making. Tests are ordered selectively, interventions are calibrated, and reassurance is grounded in clinical reasoning rather than in exhaustive exclusion. This balance is fragile, and it depends on shared interpretative frameworks between clinician and patient.

2.2 Information, knowledge, and clinical judgment

Medical information, clinical knowledge, and professional judgment are closely related, but they are not interchangeable. Information consists of data, descriptions, and associations. Clinical knowledge integrates that information within biological, epidemiological, and experiential frameworks. Professional judgment applies this integrated knowledge to a specific individual in a specific situation.

Information alone does not establish relevance. A symptom described online may be accurate in isolation yet misleading when removed from its clinical context. Professional judgment weighs timing, intensity, associated signs, patient history, and what is statistically common at a given stage of life. It also incorporates experience with what usually resolves on its own and what rarely does (Gigerenzer et al., 2007).

Medical information overload blurs these distinctions. Individuals encounter clinical descriptions without access to the filters that give them proportional meaning. The result is not ignorance, but a form of miscalibrated certainty. People feel informed while lacking the tools to assess probability and significance.

This collapse places clinicians in a difficult position. The consultation becomes a negotiation between professional judgment and externally acquired information that presents itself with comparable authority. Reestablishing the difference between knowing facts and exercising judgment becomes one of the central challenges of contemporary clinical practice (Bensing, 2000; Elwyn et al., 2016).

2.3 Information overload and the loss of risk hierarchization

Risk hierarchization is a core clinical skill. It allows professionals to prioritize diagnostic hypotheses based on likelihood and potential harm. Under conditions of information overload, this hierarchy is often distorted.

Digital health content tends to favor rare, severe, or dramatic conditions. Such cases attract attention and are more likely to be shared, repeated, and remembered. Common benign explanations receive comparatively little visibility, despite accounting for most everyday clinical presentations (Gigerenzer et al., 2007; Wegwarth & Gigerenzer, 2013).

For patients and caregivers, visibility is easily confused with frequency. Repeated exposure to severe scenarios reshapes intuitive risk assessment. Symptoms that are statistically common and self-limited may be reinterpreted as early indicators of serious disease.

This distortion has tangible consequences in clinical settings. It increases demand for diagnostic testing aimed at excluding worst-case scenarios rather than confirming likely ones. It reduces tolerance for observation and follow-up. It also transforms reassurance into a contested act rather than a therapeutic intervention, particularly when reassurance conflicts with a narrative already constructed elsewhere (Moynihan et al., 2012).

2.4 Cognitive biases in symptom interpretation

The effects of information overload are mediated by cognitive biases that are well documented in psychological research. Confirmation bias encourages individuals to privilege information that supports their initial concern. Availability bias inflates the perceived likelihood of conditions that are vivid or easily recalled. The need for cognitive closure drives the search for definitive explanations when ambiguity is uncomfortable (Nickerson, 1998; Tversky & Kahneman, 1974; Kruglanski & Webster, 1996).

These tendencies are not pathological. They reflect ordinary human cognition. In an environment saturated with medical content, however, they become amplified. Each new piece of information is rarely evaluated in isolation. Instead, it is absorbed into an evolving narrative that seeks coherence and resolution.

Clinical practice must contend with these dynamics carefully. Directly confronting biases often reinforces defensive positions. Ignoring them allows narratives to harden.

Effective clinical communication requires acknowledging why certain explanations feel compelling, while gradually reintroducing proportionality and uncertainty as legitimate elements of care (Kleinman, 1988; Shapiro, 2011).

This balance is difficult to achieve, yet it remains central to preserving the interpretative role of the clinician in an information-saturated environment.

Chapter 3

Self-diagnosis and the construction of preformed diagnostic narratives

Self-diagnosis in contemporary clinical settings cannot be understood as an isolated mistake or as a simple misreading of information. It is better approached as a structured cognitive process that unfolds over time and across multiple sources. What emerges is not a single error, but a narrative that organizes symptoms, assigns meaning, and generates expectations before the clinical encounter takes place. These narratives are shaped by information overload, emotional salience, and the human tendency to seek coherence when faced with uncertainty (Kleinman, 1988; Kruglanski & Webster, 1996).

3.1 Self-diagnosis as a narrative process rather than a discrete error

Self-diagnosis is often described as an incorrect conclusion reached by a non-professional. That description captures the outcome but misses the process. In practice, self-diagnosis functions as a narrative effort to restore order when bodily sensations become unsettling.

Symptoms are rarely experienced as isolated data points. They appear as sequences, changes, or disruptions embedded in everyday life. When concern arises, information seeking follows. Over time, disparate elements are assembled into a story that explains what is happening, why it might be happening, and what consequences should be anticipated (Kleinman, 1988).

The narrative form is central to this process. A coherent explanation provides psychological relief, even when it intensifies fear. Open-ended uncertainty is often more distressing than a defined, if threatening, scenario. For this reason, explanations that

offer causal clarity tend to prevail over probabilistic accounts that leave outcomes unresolved (Gigerenzer & Edwards, 2003).

Once established, these narratives gain stability. They cease to be experienced as tentative hypotheses and are instead treated as provisional truths awaiting professional confirmation. By the time the consultation begins, expectations are already structured around that storyline.

3.2 Symptom selection, confirmation, and exclusion of alternatives

The construction of diagnostic narratives relies on selective attention. Bodily sensations are not all weighted equally. Certain symptoms are highlighted and rehearsed, while others are ignored or reinterpreted to fit the emerging explanation.

This selectivity follows recognizable cognitive patterns. Symptoms that align with a feared diagnosis receive greater attention and are remembered more vividly. Elements that contradict it tend to be minimized or explained away. Over time, this process produces internal coherence even when the overall picture lacks clinical plausibility (Nickerson, 1998).

Alternative explanations are often excluded early. Common and benign causes may be dismissed as insufficiently explanatory or perceived as attempts to downplay risk. The narrative narrows rather than expands. This narrowing reduces openness to differential diagnosis and increases resistance to clinical reframing (Gigerenzer et al., 2007).

In pediatrics, this process is mediated by caregivers who interpret symptoms on behalf of the child. In adults, it is internalized by the patient. In both cases, the result is a diagnostic storyline that feels complete before professional evaluation begins.

3.3 Repetition, coherence, and the perception of truth

Repetition plays a decisive role in reinforcing diagnostic narratives. Exposure to similar descriptions across multiple platforms creates a sense of convergence. When different sources appear to support the same explanation, credibility increases regardless of statistical likelihood (Lupton, 2015).

Coherence amplifies this effect. A narrative that links symptoms, causes, and outcomes into a single explanatory arc is more persuasive than fragmented information.

Coherence is easily mistaken for accuracy. The smoother the story, the more convincing it feels.

Digital environments favor this dynamic. Algorithms tend to privilege content that sustains attention, which often corresponds to emotionally charged or dramatic material. Over time, individuals are repeatedly exposed to variations of the same narrative, strengthening its perceived validity (Topol, 2015).

Clinical probability rarely operates through narrative coherence. It relies on prevalence, base rates, and patterns observed across populations. These elements are difficult to convey outside professional contexts and are easily overshadowed by repeated anecdotal confirmation (Gigerenzer & Edwards, 2003).

3.4 From nonspecific symptoms to closed diagnostic hypotheses

Many self-diagnostic narratives begin with nonspecific symptoms. Fatigue, pain, behavioral changes, or transient discomforts are common in both children and adults. In most cases, such symptoms resolve spontaneously or reflect benign conditions.

Under conditions of information overload, nonspecificity is often interpreted as an early warning signal. The absence of a clear explanation is perceived as a reason for heightened concern rather than as a feature of normal variation. Observation gives way to anticipation.

At this point, the diagnostic hypothesis tends to close. New information is interpreted through the lens of the established explanation. The individual seeks confirmation rather than exploration. The possibility that symptoms may be unrelated, transient, or developmentally appropriate recedes from view.

Clinical risk emerges here. Closed hypotheses reduce interpretative flexibility. They increase demand for definitive exclusion and lower tolerance for watchful waiting. The consultation becomes oriented toward validation or refutation of a single storyline rather than toward comprehensive assessment (Moynihan et al., 2012).

3.5 Information overload and lowered thresholds of concern

Information overload does more than provide content. It reshapes emotional thresholds. Repeated exposure to severe outcomes reduces tolerance for ambiguity and amplifies perceived risk.

Anxiety becomes both a driver and a product of information seeking. Heightened concern prompts further searching, which in turn intensifies fear. This feedback loop does not require preexisting psychopathology. It can develop in individuals with no prior history of health anxiety (Starcevic & Berle, 2014).

As concern escalates, the threshold for seeking medical confirmation drops. Symptoms that might previously have been monitored over time now prompt urgent consultation. In pediatrics, this often appears as repeated visits or requests for immediate evaluation. In adults, it frequently manifests as demands for extensive testing to exclude serious disease (McElroy & Shevlin, 2014).

The clinical encounter is therefore preceded by an emotional trajectory that shapes expectations and constrains dialogue. Recognizing this trajectory is essential for understanding patient behavior and for avoiding premature validation or unnecessary escalation.

Chapter 4

Pediatrics as a critical scenario of the phenomenon

Pediatrics represents a particularly sensitive setting for the dynamics described so far. The combination of nonspecific symptoms, rapid developmental change, and mediated narration creates a clinical environment in which information overload has amplified effects. In pediatric care, uncertainty is not only clinical but also relational. Symptoms are interpreted through caregivers, and anxiety is often driven by responsibility rather than by personal fear. For these reasons, pediatrics offers a clear view of how self-diagnosis, overinterpretation, and validation demands take shape within everyday practice (Cassell, 2004; Kleinman, 1988).

4.1 Clinical specificity of childhood and variability of normality

Childhood is defined by continuous physiological and behavioral change. What is expected at one age may be unusual at another. Growth patterns, neurodevelopment, sleep rhythms, feeding behavior, and emotional regulation evolve unevenly and at different speeds.

Many pediatric symptoms are transient and self-limited. Fever, irritability, appetite changes, skin findings, or behavioral fluctuations often reflect benign processes or developmental stages. From a clinical standpoint, variability is expected and frequently reassuring. From a non-professional perspective, the same variability is often interpreted as instability or early pathology.

Information overload interacts poorly with this reality. General descriptions of symptoms rarely incorporate age-dependent norms. Caregivers encounter explanations that may be accurate in other contexts but inappropriate for a child's

developmental stage. When age framing is absent, normal variation can easily appear abnormal (Gigerenzer et al., 2007).

Pediatric clinicians are trained to interpret symptoms longitudinally and developmentally. Caregivers, by contrast, are exposed to fragmented descriptions that lack these temporal anchors. This asymmetry lies at the center of many misunderstandings that emerge during consultation.

4.2 The child as a non-narrating patient and the central role of the caregiver

Unlike adult medicine, pediatrics involves patients who often cannot reliably describe their own symptoms. The clinical narrative is constructed by caregivers through observation and interpretation. This mediation is unavoidable and essential.

Caregivers interpret signs through emotional filters shaped by responsibility and protective instinct. Minor changes may acquire heightened significance. Ambiguous behaviors are often reinterpreted retrospectively once a concerning explanation has taken hold.

Information overload intensifies this process. Caregivers do not arrive reporting observations alone. They frequently present interpretations already aligned with external narratives encountered online or through media. The consultation thus begins with a partially formed diagnostic frame that influences which details are emphasized and which recede into the background (Lupton, 2013).

This dynamic does not imply distortion or bad faith. It reflects the cognitive and emotional burden placed on caregivers who are expected to act as vigilant observers without access to the interpretative tools used in clinical reasoning.

4.3 Parental anxiety, anticipatory protection, and information seeking

Parental anxiety in medical contexts is not pathological by default. It emerges from the obligation to protect a vulnerable individual who cannot advocate for themselves. When uncertainty arises, information seeking becomes an extension of care rather than a sign of mistrust.

Digital environments offer immediate access to explanations, warnings, and personal accounts. These resources promise preparedness and control. At the same time,

they expose caregivers to severe and statistically rare outcomes that carry strong emotional weight (Starcevic & Berle, 2014).

In clinical practice, this dynamic becomes tangible. In a recent pediatric consultation, a caregiver arrived with the conviction that a three-year-old child was exhibiting early signs of a neurodevelopmental disorder after prolonged exposure to online videos describing behavioral "red flags." The child's clinical evaluation showed age-appropriate language, social interaction, and adaptive behavior. No developmental screening suggested pathology. Despite this, reassurance was initially received with skepticism, not because the explanation lacked clarity, but because it failed to align with the narrative already constructed. The encounter shifted from clinical assessment toward negotiation of meaning, illustrating how anticipatory protection can stabilize concern even in the absence of objective findings.

Anticipatory protection shifts attention toward worst-case scenarios. The caregiver's focus moves from observing evolution to preventing imagined futures. This anticipatory stance lowers tolerance for watchful waiting and increases urgency for definitive answers.

The clinical consequence is a narrowing of acceptable explanations. Benign interpretations feel unsafe. Reassurance without exclusion may be experienced as insufficient. The pediatrician is then asked to confirm safety in absolute terms, a demand that medicine cannot legitimately meet (Gigerenzer & Edwards, 2003).

4.4 Inversion of prevalence and the dominance of rare diagnoses

A recurring effect of information overload in pediatrics is the inversion of prevalence. Rare conditions gain cognitive prominence, while common explanations lose persuasive force.

This inversion is reinforced by the dynamics of digital content. Severe cases are more visible, more frequently shared, and more memorable than ordinary clinical scenarios. Statistical rarity does not translate into perceived improbability. Instead, it is overshadowed by narrative intensity (Wegwarth & Gigerenzer, 2013).

As a result, caregivers may interpret common symptoms as early indicators of serious disease. Developmental delays are feared as irreversible disorders. Behavioral variations are read as pathological signals. Patterns of ordinary childhood illness are experienced as alarming deviations.

The pediatrician must then reestablish proportionality. This task is clinically nec-

essary but communicationally demanding. It involves explaining why a rare diagnosis is unlikely without dismissing concern and reintroducing prevalence as a meaningful concept in a context where narrative exposure has already reshaped perception (Gigerenzer et al., 2007).

4.5 Clinical consequences of parental self-diagnosis

Parental self-diagnosis has tangible effects on pediatric care. One frequent consequence is unnecessary medicalization. Children may undergo tests that are unlikely to change management but serve to contain caregiver anxiety (Moynihan et al., 2012).

Another consequence is selective attention. When focus is fixed on a feared diagnosis, other relevant signs may be overlooked or misattributed. This narrowing can interfere with comprehensive assessment and delay recognition of issues that require a different clinical approach.

Repeated consultations are also common. Visits occur not because symptoms worsen, but because reassurance fails to dismantle the underlying narrative. Each encounter feels incomplete until the expected validation is achieved.

These dynamics may affect adherence as well. When professional recommendations conflict with a caregiver's preformed explanation, compliance can weaken. Alternative strategies sourced externally may be pursued alongside or instead of prescribed care.

4.6 Impact on the pediatrician–family relationship

The transformation of the clinical visit into a validation encounter places strain on the pediatrician–family relationship. Clinicians must balance empathy with epistemic responsibility.

Explicit disagreement may be perceived as minimization. Implicit agreement risks reinforcing inaccurate beliefs. Silence can be interpreted as uncertainty or avoidance. Each communicational choice carries consequences for trust.

Over time, repeated validation demands can erode the therapeutic alliance. Clinicians may feel reduced to certifiers rather than engaged partners in care. Families may feel unheard when their narrative is not endorsed.

Preserving the relationship requires reframing the encounter. Pediatricians must acknowledge concern, recontextualize information, and restore uncertainty as a legitimate and manageable aspect of care. This communicational work has become a

core clinical skill rather than a peripheral one in information-saturated environments (Bensing, 2000; Elwyn et al., 2016).

Chapter 5

The pediatric visit as a validation encounter

The clinical dynamics described in the preceding chapters converge most clearly in the pediatric visit itself. The consultation becomes the space where preformed narratives, emotional urgency, and professional judgment intersect in real time. What is at stake is not only diagnosis, but the very function of the encounter. When caregivers arrive seeking confirmation rather than exploration, the pediatric visit is reconfigured in ways that carry clinical, relational, and institutional consequences (Bensing, 2000; Cassell, 2004).

This chapter examines how that reconfiguration unfolds, the implicit roles assigned to the pediatrician, the communicational tensions that arise, and the risks associated with validation as a response to information overload rather than as a deliberate clinical act.

5.1 From reason for consultation to expectation of confirmation

In traditional pediatric care, the reason for consultation initiates a shared process of inquiry. Symptoms are described, clarifications are sought, and hypotheses are progressively shaped through interaction. Under conditions of information overload, this sequence is frequently altered.

Caregivers often arrive with a defined expectation already in place. The consultation is oriented toward confirming or excluding a diagnosis that has been cognitively adopted before professional evaluation. While the stated reason for consultation may appear open-ended, the underlying objective is often validation.

This expectation reshapes the interaction from the outset. Answers are framed to

support the preexisting explanation. Observations are narrated selectively, emphasizing elements that reinforce the anticipated conclusion. The encounter moves toward a verdict rather than an assessment.

As a result, the pediatrician is placed in a reactive position. Instead of guiding the diagnostic process from uncertainty toward clarity, the clinician is asked to respond to an already constructed narrative. This shift affects both the substance and the tone of the visit, narrowing the space for exploration (Elwyn et al., 2016).

5.2 The pediatrician as auditor of external information

Within the validation encounter, the pediatrician is implicitly assigned the role of auditor. External information enters the consultation as a reference point that demands evaluation.

Caregivers may cite online descriptions, videos, forums, or generalized diagnostic criteria. These references are rarely presented as tentative questions. More often, they are conveyed as provisional conclusions that require professional endorsement.

Contextualizing external information is not, in itself, problematic. Clarifying misunderstandings and correcting misapplications are now routine aspects of clinical work. Difficulty arises when externally acquired narratives are granted epistemic weight comparable to clinical judgment.

At that point, professional authority is subtly redefined. The pediatrician is no longer positioned as the primary interpreter of symptoms, but as a validator of interpretations produced elsewhere. This redefinition creates tension between clinical responsibility and relational expectations, particularly when endorsement and reassurance are implicitly conflated (Blease et al., 2019).

5.3 Communicational tensions and preservation of the therapeutic alliance

Validation encounters place communication under strain in ways that are not always obvious at the outset of the consultation. Responses that are clinically appropriate can still have unintended relational effects, and small linguistic choices may carry disproportionate weight.

In everyday pediatric practice, this tension often appears early. A caregiver opens the visit with a saved link, a short video, or a printed list of “red flags.” The conversation is already oriented toward a named diagnosis. At that point, a direct statement

such as “that is unlikely” may be factually correct, yet it can be received as a refusal to engage rather than as an explanation. The caregiver may leave feeling that the concern itself was not fully acknowledged, even when the clinician’s reasoning was sound and complete.

Attempts to preserve rapport can create a different difficulty. Phrases like “I see why that comes to mind” or “yes, people talk about that” are common and usually well intentioned. They buy time. They lower tension. But when they are not followed by explicit reframing, they may later be recalled as confirmation rather than courtesy. That recollection tends to persist, especially once anxiety has attached itself to a specific narrative.

Partial endorsement often emerges as a compromise. The pediatrician acknowledges plausibility while emphasizing low probability. In practice, this is one of the hardest positions to hold. Without careful framing, probability fades and plausibility remains. What was meant as reassurance can quietly reinforce the very explanation the clinician is trying to weaken. That is where the interaction becomes fragile.

Maintaining the therapeutic alliance in this context requires deliberate effort and sustained attention to language. The pediatrician must validate the caregiver’s concern while clearly withholding validation of the diagnosis itself. This distinction is subtle, often uncomfortable, and emotionally demanding. It is also increasingly central to effective care in environments shaped by information overload (Bensing, 2000).

5.4 The clinical risks of implicit and explicit validation

Validation is not a neutral act. When a preformed diagnostic narrative is validated, even indirectly, it can shape subsequent clinical trajectories in lasting ways.

One risk is diagnostic fixation. Once a narrative is endorsed, alternative explanations tend to recede. Future symptoms are interpreted through the same lens, even when they point toward different or more benign causes (Moynihan et al., 2012).

Another risk is escalation of intervention. Validation increases demand for testing aimed at confirmation or exclusion. Such testing may carry its own harms, including false positives and incidental findings that generate further anxiety and additional cascades of care (Moynihan et al., 2012).

In pediatrics, validation can also extend beyond the consultation. Caregiver behavior may shift toward hypervigilant monitoring. Normal variations are scrutinized. Everyday events are reinterpreted as warning signs.

From a professional perspective, validation may increase medico-legal exposure. Endorsing an externally constructed diagnosis blurs the boundaries of responsibility,

particularly when outcomes diverge from expectations or when reassurance is later perceived as incorrect (Cassell, 2004).

5.5 Reframing strategies without delegitimizing concern

Effective pediatric practice in information-saturated contexts depends on reframing rather than refutation. The objective is not to negate the caregiver's effort to understand, but to relocate interpretation within a clinical framework.

Restoring proportionality is central. This involves explaining prevalence, typical evolution, and developmental norms in concrete terms. Abstract reassurance is rarely sufficient. Contextual explanation allows caregivers to situate concern within a broader landscape of probability (Gigerenzer et al., 2007).

Temporal reframing is equally important. Emphasizing observation over time transforms uncertainty into a shared process rather than an unresolved threat. Follow-up plans give structure to waiting and reduce the perceived need for immediate validation.

Language is decisive. Clear statements about what is unlikely, what is expected, and what would warrant reassessment help replace narrative certainty with structured vigilance. These strategies do not eliminate anxiety, but they render it manageable and clinically productive.

Through this work, the pediatrician is repositioned as a guide in interpretation rather than an arbiter of external narratives. This role allows clinical authority to be exercised through explanation, proportionality, and continuity, preserving trust while resisting the pressure to convert every concern into a diagnostic act. In everyday practice, this shift often proves more sustainable than repeated testing, allowing families to remain engaged with care without becoming trapped in cycles of fear, escalation, and unnecessary intervention.

5.6 Validation encounters as a structural feature of contemporary pediatrics

The validation encounter should not be understood as an anomaly or as a failure of individual communication. It reflects a structural transformation in how medical information circulates and how care is sought.

Pediatricians are increasingly required to engage with narratives shaped outside the clinical setting. This engagement demands skills that extend beyond diagnosis and treatment. It requires epistemic mediation, emotional containment, and communicational precision.

Recognizing validation encounters as a recurrent configuration allows for more deliberate clinical strategies. It shifts the focus from frustration to adaptation.

The pediatric visit remains a privileged space for interpretation and care. Preserving this function requires acknowledging the pressures imposed by information overload while reaffirming the distinctive value of professional judgment in guiding uncertainty.

Chapter 6

Adult self-diagnosis and health anxiety in contemporary clinical practice

While pediatrics offers a particularly visible expression of validation encounters, similar dynamics operate in adult medicine through different pathways. In adult patients, self-diagnosis is less mediated and more directly internalized. Concern is not delegated to a caregiver but experienced as personal threat. The clinical encounter is therefore shaped by fear of illness and by the demand for certainty rather than by shared interpretation. Information overload plays a central role in this transformation, contributing to health anxiety and reorienting consultations toward exclusion of feared diagnoses rather than toward comprehensive assessment (Starcevic & Berle, 2014; McElroy & Shevlin, 2014).

6.1 Health anxiety as a response to bodily uncertainty

Bodily sensations are inherently ambiguous. Fatigue, palpitations, dizziness, pain, or transient discomforts are common experiences across adult life. In most cases, they reflect benign or self-limited processes. Difficulty arises when ambiguity is interpreted as threat rather than as normal variation.

Health anxiety develops when uncertainty surrounding bodily sensations is experienced as evidence of potential serious illness. This process does not require fixed delusional beliefs or established psychiatric disorders. It often appears in individuals with no prior mental health history, particularly in environments where information about severe disease is readily accessible and repeatedly encountered (Barsky & Ahern, 2004).

Information overload lowers the threshold at which concern is activated. Adults become more attentive to bodily sensations and more inclined to interpret them through a pathological lens. Normal fluctuations acquire diagnostic significance. The absence

of a clear explanation ceases to be reassuring and instead becomes a source of distress (American Psychiatric Association, 2013).

6.2 Cyberchondria and compulsive information seeking

The term cyberchondria is commonly used to describe the amplification of health anxiety through repeated online searches. It does not refer to a discrete diagnostic category, but to a recognizable pattern of behavior that has emerged alongside the growing availability of medical information and long predates any single technological platform (Starcevic & Berle, 2014).

The sequence itself is familiar in clinical practice. A symptom triggers a search, the search yields a wide spectrum of possible explanations, and the most salient among them are often the most alarming. Rare and severe conditions acquire disproportionate weight, anxiety rises, and further searching follows. With each cycle, attention narrows and the feared narrative becomes more entrenched, even in the absence of objective clinical indicators (Starcevic & Berle, 2014; McElroy & Shevlin, 2014).

From the patient's perspective, this behavior is rarely experienced as pathological. It is more often understood as diligence, responsibility, or even prudence. Looking things up feels like taking control in the face of uncertainty. Yet the practical effect is paradoxical. Rather than settling concern, repeated searching keeps it active, displacing reassurance with ever new possibilities that are harder to rule out.

In this context, information ceases to function as reassurance and begins to operate as an accelerant. Volume and repetition overwhelm the individual's capacity to contextualize risk, transforming what was intended as access to knowledge into a form of cognitive overload that sustains anxiety rather than resolving it (Starcevic & Berle, 2014; McElroy & Shevlin, 2014).

6.3 From transient concern to persistent hypochondriacal patterns

Not all health anxiety progresses to persistent hypochondriacal patterns. Many episodes remain situational and resolve once symptoms abate or reassurance is accepted. Information overload, however, increases the likelihood of persistence.

When self-diagnostic narratives are repeatedly reinforced, concern becomes progressively less responsive to clinical reassurance. Negative test results provide only

temporary relief. Attention soon shifts toward alternative explanations or toward doubts about test accuracy and false negatives (Barsky & Ahern, 2004).

At this stage, the clinical problem is no longer the original symptom. It becomes the patient's relationship with uncertainty itself. The body is experienced as a site of continuous surveillance. Minor sensations trigger renewed concern and renewed searching.

This pattern exists along a continuum. It does not always meet formal psychiatric criteria. Its relevance for clinical practice lies in how it reshapes consultation dynamics, resource use, and the clinician's role (American Psychiatric Association, 2013).

6.4 The adult clinical visit as a space of diagnostic exclusion

In adult medicine, validation encounters often take the form of exclusion-oriented consultations. Patients do not arrive seeking a diagnosis. They arrive seeking reassurance that a specific feared condition is not present.

In routine outpatient settings, this pattern is familiar. The presenting symptom is frequently common and nonspecific, but the narrative is already framed around what must be ruled out. The visit may open with a reference to something read online or to a story heard from a relative, and the underlying request becomes confirmation that "it is not that."

From that point on, the consultation tends to reorganize itself around tests. A scan, a set of laboratory results, sometimes a referral. The purpose is not to understand the symptom in context, but to close off the worst-case interpretation. This places clinicians in a difficult position. Refusing a test can later be remembered as dismissal. Ordering it can be remembered as proof that the feared diagnosis was plausible. Either choice reshapes the encounter and carries relational as well as clinical consequences (Moynihan et al., 2012).

When these exclusion-oriented visits repeat over time, diagnostic cascades become more likely. Incidental findings, borderline values, and equivocal interpretations generate new uncertainties. Anxiety is not resolved but displaced, and the cycle resumes (Moynihan et al., 2012). It keeps coming back.

6.5 Resource utilization, reassurance failure, and escalation

Health anxiety driven by information overload produces measurable systemic effects. Demand for consultations, diagnostic testing, and specialist referrals increases, placing pressure on healthcare resources.

More importantly, reassurance loses effectiveness. When reassurance is delivered without addressing the narrative structure underlying concern, it is experienced as incomplete. The absence of pathology does not restore confidence. It postpones the next episode of worry (Starcevic & Berle, 2014).

Escalation becomes more likely. Patients may seek repeated opinions, emergency evaluations, or alternative sources of validation. The healthcare system is used as a means of anxiety regulation rather than as a site of interpretative care.

Recognizing this pattern allows clinicians to intervene earlier. Addressing the informational and emotional context of concern is essential for preventing unnecessary escalation and for restoring proportionality to decision-making. In practice, this often means shifting the clinical encounter away from endless exclusion and toward conversations that help patients tolerate uncertainty without feeling abandoned or dismissed.

6.6 Parallels and distinctions with the pediatric scenario

Adult and pediatric validation encounters share core structural features. Both are shaped by preformed narratives, reduced tolerance for uncertainty, and demand for confirmation. In both, the clinician's role is redefined.

The distinction lies in mediation and agency. In pediatrics, concern is projected onto another body and filtered through responsibility. In adults, concern is embodied and directly experienced. Autonomy increases, but rigidity often increases with it.

These parallels indicate that the phenomenon is not age-specific. It represents a systemic response to information overload interacting with human cognition and emotion. Pediatrics reveals the dynamics with particular clarity. Adult medicine confirms their broader reach.

Chapter 7

Technologies as informational intermediaries

The dynamics analyzed throughout this work do not originate in technology itself. They arise from the ways in which information is accessed, ordered, and presented within contemporary digital environments. Technologies function as intermediaries that shape attention, interpretation, and narrative formation. Rather than assigning causal power to specific tools, it is more accurate to examine how different informational interfaces structure the encounter between individuals and medical knowledge, thereby amplifying self-diagnosis, anxiety, and expectations of validation (Lupton, 2013; Topol, 2015).

7.1 Search engines, health portals, and audiovisual platforms

Search engines represent the most common point of entry into medical information. Their ranking mechanisms prioritize relevance, popularity, and engagement rather than clinical appropriateness. As a result, users encounter heterogeneous content in which professional guidance, anecdotal testimony, and speculative interpretation coexist without clear differentiation (McMullan, 2006).

Health portals often pursue accessibility and clarity. To achieve this, they necessarily generalize. Symptoms are described in isolation from individual history. Differential diagnoses are listed without proportional framing. Severity is mentioned without anchoring prevalence. These simplifications are not errors in themselves, but they remove the contextual filters that clinicians routinely apply (Gigerenzer et al., 2007).

Audiovisual platforms add a further layer. Videos present embodied experiences, emotional tone, and narrative continuity. Medical information is transformed into

lived stories. This format increases identification and memorability, while also amplifying exceptional cases and dramatic outcomes that do not reflect typical clinical trajectories (Lupton, 2015).

Each interface contributes differently to interpretation. None is inherently misleading. The effect emerges from cumulative exposure across platforms that privilege salience and emotional engagement over proportionality.

7.2 Fragmented information and integrated narratives

Technological formats structure information in distinct ways. Search engines fragment content. Users move rapidly between links, extracting elements that resonate with their concern. Over time, these fragments are assembled into a personalized explanatory narrative.

Audiovisual and conversational formats, by contrast, offer integration from the outset. Information is delivered as continuous discourse. Cognitive effort is reduced, and perceived understanding increases. The user is guided through an explanation rather than left to assemble one.

Integrated narratives are especially persuasive. They simulate the coherence of clinical reasoning without reproducing its constraints. Probability, uncertainty, and alternative explanations tend to be flattened in favor of explanatory flow. What is lost is not information, but proportion (Gigerenzer & Edwards, 2003).

The issue does not lie in integration itself. It lies in the absence of epistemic markers that distinguish illustration from likelihood. When coherence replaces probability, plausibility replaces prevalence.

7.3 Format effects and clinical interpretation

The format through which medical information is delivered strongly influences how it is interpreted. Text encourages selective reading and comparison. Video promotes emotional engagement and identification. Conversational interfaces foster dialogic trust.

Each format interacts differently with cognitive biases. Repetition across formats reinforces belief. Emotional tone increases perceived importance. Personalization enhances relevance. Together, these effects strengthen confidence in interpretations that have not been clinically tested (Tversky & Kahneman, 1974; Nickerson, 1998).

Clinical interpretation follows a different logic. It relies on structured questioning,

contextualization, and iterative refinement over time. These processes are difficult to reproduce outside professional settings. When technological formats obscure this difference, the boundary between information and diagnosis becomes blurred.

The consequence is not confusion, but overconfidence. Individuals feel capable of interpreting symptoms because the format delivers clarity. The cost of that clarity is reduced tolerance for ambiguity and follow-up.

7.4 Conversational systems as intensifiers rather than causes

Conversational technologies warrant specific attention, not because they introduce a new phenomenon, but because they intensify existing dynamics. Their distinctive feature is the simulation of dialog rather than mere access to information.

Dialogic presentation increases trust. Explanations appear responsive and adaptive. Uncertainty is softened through language. The interaction feels personalized, even when it is not grounded in individual clinical context (Blease et al., 2019).

Conversational systems do not replace clinical judgment. They reorganize information without assuming responsibility. Their outputs are not diagnoses, yet they may be perceived as such due to their conversational form.

Their intensifying effect lies in narrative closure. Responses tend to complete explanatory loops. Open-endedness is reduced. This closure is emotionally reassuring and cognitively compelling, particularly for individuals already seeking certainty.

When such narratives precede clinical encounters, expectations of validation are strengthened. The clinician is then asked to confirm not a question, but an already consolidated explanation, which subtly reshapes the clinical interaction before any professional assessment has even begun.

7.5 The illusion of understanding and the promise of control

Across technological formats, a common effect emerges. Information overload produces an illusion of understanding. Familiarity with terminology, exposure to explanations, and narrative coherence generate confidence.

This confidence is not proportional to clinical accuracy. It reflects cognitive comfort rather than epistemic adequacy. Individuals feel prepared, yet remain unable to assess

relevance, probability, or clinical significance (Gigerenzer et al., 2007).

The implicit promise underlying many digital health interactions is control. Information appears to offer mastery over uncertainty. In practice, it often increases vigilance and anxiety by multiplying possible interpretations and outcomes.

Recognizing technologies as intermediaries clarifies the locus of intervention. The challenge does not lie in access, but in mediation. Addressing the effects of information overload requires restoring interpretative frameworks within clinical encounters rather than restricting informational tools themselves.

Chapter 8

The legal dimension of self-diagnosis and clinical validation

The transformation of the clinical encounter under conditions of information overload has legal consequences that extend beyond classical notions of malpractice or professional negligence. When patients and caregivers arrive with preformed diagnostic narratives and seek validation, the boundaries of responsibility, consent, and professional duty become less stable. Legal analysis must therefore account for interactions in which clinical judgment is exercised in the presence of externally constructed expectations rather than in their absence. This chapter examines how self-diagnosis and validation encounters reshape the legal architecture of medical practice, particularly in relation to reasonable expectations, attribution of harm, and the limits of professional endorsement in contemporary healthcare environments (Cassell, 2004; Blease et al., 2019).

8.1 The duty to inform in contexts of informational saturation

The duty to inform has traditionally been understood as an obligation to provide relevant, accurate, and comprehensible information to the patient. This duty presupposes a degree of epistemic asymmetry, in which the clinician functions as the primary source of medical explanation and contextualization.

Information overload disrupts this assumption. Patients and caregivers often arrive already saturated with medical content acquired outside the clinical relationship. The duty to inform no longer operates in an informational vacuum. It must coexist with interpretations that claim legitimacy based on exposure, familiarity, and narrative coherence rather than on clinical reasoning (Lupton, 2013).

In this context, the clinician's task extends beyond transmission of information. It includes reframing, correcting, and contextualizing content that has already been internalized. This reframing has legal relevance. Failure to address external narratives may be perceived as tacit endorsement, while abrupt dismissal may be interpreted as lack of diligence or insufficient engagement.

The legal difficulty lies in distinguishing between informing and validating. Explaining a condition or acknowledging its existence in general terms does not imply confirming its presence in a specific patient. Under conditions of narrative saturation, however, this distinction is easily blurred, increasing the risk of misattributed responsibility.

8.2 Reasonable expectations and the demand for professional endorsement

Legal assessments of medical responsibility are often grounded in the concept of reasonable expectations. Patients are entitled to expect care consistent with accepted professional standards. Clinicians are not obligated to satisfy every patient demand.

Validation encounters complicate this framework. When patients seek confirmation of externally constructed diagnoses, expectations may exceed what medicine can legitimately provide. The demand is not primarily for evaluation, but for endorsement.

Endorsement carries legal weight. When a clinician confirms, or appears to confirm, a diagnosis, responsibility becomes attached to that narrative. The professional is associated with an interpretative framework they did not originate. In subsequent disputes, this association may be invoked in claims related to delayed diagnosis, inappropriate reassurance, or unnecessary intervention (Moynihan et al., 2012).

The reasonableness of expectations must therefore be recalibrated. Expecting careful evaluation of symptoms is reasonable. Expecting confirmation of a narrative constructed outside the clinical encounter is not. Clarifying this boundary is essential both for legal clarity and for preservation of professional autonomy.

8.3 Responsibility and attribution of harm in validation encounters

Traditional models of medical liability tend to assume a relatively linear relationship between professional action and patient harm. A decision is made, an error occurs,

and damage follows. In contexts shaped by information overload, that sequence becomes harder to trace.

In routine follow-up, a familiar situation may emerge. A patient later recalls having been reassured that a symptom was "probably benign" or "nothing serious." Months afterward, an unrelated condition appears, or a clinical course evolves in an unexpected way. In hindsight, the earlier encounter may be reinterpreted as a moment of diagnostic closure, even when the clinician's language was cautious and explicitly provisional. That reinterpretation carries weight. This dynamic echoes earlier observations made during the expansion of digital medicine, where responsibility was shown to migrate from discrete clinical acts toward relational and infrastructural contexts shaped by technological mediation (Torres Ponce & Arana, 2021).

In these situations, harm does not arise from an incorrect diagnosis in the traditional sense. It arises from the validation of an inappropriate diagnostic frame. Once that frame is stabilized, it can shape subsequent behavior. Patients may delay seeking care for new symptoms, disengage from recommended follow-up, or pursue repeated testing in search of reassurance rather than guidance.

Attribution of responsibility then becomes problematic. External information sources rarely enter legal analysis. Platform content, forums, and generalized health information tend to disappear from the practical chain of causation. The clinician, by contrast, remains visible and accountable by virtue of their formal role, even when their contribution consisted only of contextual reassurance offered in good faith.

This configuration encourages defensive responses. Additional tests may be ordered, or reassurance may be repeated more emphatically, in an effort to reduce perceived legal exposure. Paradoxically, these strategies can increase harm by reinforcing anxiety or by generating incidental findings that trigger further intervention (Moynihan et al., 2012; Welch et al., 2011).

Legal frameworks must therefore recognize validation encounters as a distinct category of interaction. In these encounters, responsibility is shaped less by discrete diagnostic acts than by relational dynamics, retrospective interpretation, and the boundaries of professional endorsement under conditions of informational saturation.

8.4 Clinical documentation, consent, and risk management

Clinical documentation acquires heightened relevance in validation encounters, not because the legal framework has changed, but because the meaning attributed to ordinary interactions has. What was once a routine note now operates as a primary record

of how uncertainty, reassurance, and limits were communicated.

In everyday clinical practice, documentation often reflects brevity. Notes such as "reassured," "no red flags," or "watchful waiting advised" are common and clinically sufficient in stable contexts. Under conditions of information overload, however, these formulations may later be read as definitive conclusions rather than as provisional assessments. The problem is not inaccuracy, but interpretive drift.

Consent presents similar challenges. Patients may agree to observation, decline further testing, or accept discharge based on premises shaped by external information. In such cases, consent may be formally obtained while substantive understanding remains partial. The clinician's obligation extends beyond obtaining agreement. It includes verifying that the patient's decision is not anchored in misinterpretations that remain unaddressed (Elwyn et al., 2016).

A frequent scenario involves a patient who accepts a conservative approach during consultation, only to later claim that certain risks were never discussed or that reassurance implied exclusion of all serious possibilities. This discrepancy often reflects a mismatch between what was said, what was understood, and what was remembered. Documentation becomes the only stable reference point in this shifting landscape.

Clear records of explanatory efforts serve multiple functions simultaneously. They support clinical continuity by making reasoning visible to other professionals. They delineate the boundaries of what was and was not endorsed. They also demonstrate that uncertainty was not ignored, but actively managed. Importantly, such documentation need not be exhaustive. Its value lies in clarity rather than volume.

Risk management in validation encounters does not depend on defensive medicine or indiscriminate testing. It depends on explicit communication that is later traceable. Recording that certain diagnoses were considered unlikely, that observation was chosen deliberately, and that criteria for reevaluation were discussed aligns clinical reality with legal expectation. In this way, documentation becomes not a bureaucratic burden, but a tool for preserving both professional judgment and relational trust.

8.5 The boundary between public information and the medical act

One of the most significant legal challenges posed by information overload is erosion of the boundary between public medical information and the medical act itself.

Public medical information is not subject to professional liability. The medical act is. Validation encounters create an intermediate space in which public narratives are

brought into the clinical domain and acquire professional significance through interaction.

This transfer is not automatic. It occurs through communicational choices. When clinicians engage with external narratives, they may contextualize, refute, or partially incorporate them. Each choice carries legal implications.

Preserving the distinction between information and diagnosis is therefore not merely a communicational task. It is a juridical necessity. Failure to maintain this boundary risks expanding professional liability beyond reasonable limits and undermining the integrity of clinical judgment (Cassell, 2004). In practice, this means that even well-intentioned reassurance or partial endorsement can have consequences that extend far beyond the immediate clinical exchange.

8.6 Toward a legally informed clinical response to information overload

Addressing the legal implications of self-diagnosis and validation encounters does not require restricting access to information. It requires conceptual clarity and professional adaptation.

Clinicians must be supported in their role as epistemic mediators rather than as validators of external content. Legal standards should explicitly recognize uncertainty, observation, and longitudinal assessment as components of good clinical practice rather than as signs of insufficiency.

From a governance perspective, acknowledging information overload as a structural condition allows for more realistic expectations of professional responsibility. It also protects the clinical encounter from being reduced to a site of certification for narratives produced elsewhere.

Understanding these legal dimensions is essential for sustaining trust, preserving professional autonomy, and ensuring that responsibility remains aligned with clinical reality rather than with informational noise.

Chapter 9

Practical implications and lines of intervention

The phenomena analyzed throughout this work call for responses that are clinically grounded and realistically applicable. Information overload cannot be eliminated, nor would it be appropriate to discourage access to medical information. The challenge lies in adapting clinical practice to an environment in which preformed narratives and validation demands are increasingly common. The objective of intervention is not control of information, but preservation of the clinical encounter as a space for interpretation, proportionality, and shared management of uncertainty (Cassell, 2004; Bensing, 2000).

9.1 Health literacy oriented toward uncertainty management

Conventional approaches to health literacy tend to emphasize access to information and comprehension of medical terminology. In contexts of information overload, this approach is insufficient. Increased knowledge does not necessarily translate into improved judgment, and may instead intensify anxiety when interpretative frameworks are absent.

What is required is a form of health literacy oriented toward uncertainty management. Patients and caregivers need support in understanding that uncertainty is not synonymous with negligence, ignorance, or lack of expertise. It is a constitutive feature of medical reasoning, particularly in early or nonspecific presentations (Gigerenzer & Edwards, 2003).

Educational efforts are more effective when they focus on how clinicians reason rather than on what clinicians know. Concepts such as prevalence, expected clini-

cal evolution, and probabilistic thinking can be explained without technical complexity. Repetition and consistency are more important than depth. When patients understand why certainty is often deferred, the perceived need for immediate confirmation decreases (Gigerenzer et al., 2007).

By shifting attention from exhaustive knowledge toward interpretative process, health literacy initiatives can reduce reliance on external validation and foster more durable reassurance.

9.2 Clinical strategies in pediatric practice

In pediatrics, practical strategies must account for mediated narration and heightened emotional responsibility. Early identification of preformed narratives is therefore essential.

Pediatricians benefit from explicitly exploring prior information exposure at the outset of the consultation. This exploration should be non-judgmental. Acknowledging the caregiver's effort to understand signals respect and opens space for reframing rather than confrontation (Bensing, 2000).

Clear explanation of what is common, what is expected, and what would warrant reevaluation restores proportionality. Temporal framing is particularly effective in pediatric care. Follow-up plans transform uncertainty into shared monitoring rather than unresolved risk, allowing caregivers to shift from vigilance toward observation (Cassell, 2004).

Explicit articulation of warning signs provides structure. It helps caregivers distinguish between appropriate attention and hypervigilance. This distinction reduces repeated consultations driven primarily by anxiety rather than by clinical change (Gigerenzer et al., 2007).

9.3 Clinical strategies in adult consultations

In adult medicine, intervention must address health anxiety without pathologizing the patient. The aim is not elimination of concern, but redirection toward interpretation rather than exclusion.

Clinicians should recognize exclusion-oriented consultation patterns early. Naming the underlying fear explicitly often shifts the encounter from testing toward reasoning. When anxiety is acknowledged, patients are more receptive to probabilistic explanations (Starcevic & Berle, 2014).

Reassurance is most effective when it is explanatory rather than declarative. Statements of normality that lack reasoning tend to be short-lived. When clinicians explain why a symptom is unlikely to indicate serious disease, reassurance gains durability (Barsky & Ahern, 2004).

Limiting unnecessary testing is rarely sufficient on its own. Patients require an alternative narrative to replace catastrophic interpretations. Providing a benign explanatory framework and an expected course allows concern to settle without reliance on repeated exclusion (Moynihan et al., 2012).

When anxiety persists despite appropriate explanation, collaboration with mental health professionals may be appropriate. Such referrals are most effective when framed as supportive rather than as escalation or dismissal (Barsky & Ahern, 2004).

9.4 Communicational techniques for validation encounters

Validation encounters demand specific communicational competencies. A central principle is separating validation of concern from validation of diagnosis.

Language requires particular care. Acknowledging fear does not entail endorsing its object. Ambiguous phrasing may later be interpreted as confirmation, even when unintended. Precision reduces retrospective reinterpretation (Bensing, 2000).

Explicit clarification of what has been excluded, what remains possible, and what is unlikely helps stabilize interpretation. Silence or excessive neutrality often increases anxiety by leaving space for narrative reinforcement.

Consistency across visits is crucial. Reframing efforts must remain stable over time. Inconsistent messages undermine trust and stimulate renewed information seeking. Communicational coherence supports containment of uncertainty (Elwyn et al., 2016).

These skills are no longer peripheral. They are central components of clinical competence in information-saturated environments.

9.5 The role of professional societies and responsible dissemination

Individual clinical efforts, while necessary, are insufficient. Professional societies play a significant role in shaping the informational environment encountered by patients and caregivers.

Guidelines and public-facing materials benefit from incorporating proportional framing and explicit discussion of uncertainty. Oversimplification may improve accessibility but can inadvertently increase misinterpretation and anxiety (Gigerenzer et al., 2007).

Engagement with digital platforms is unavoidable. Rather than avoiding these spaces, professional organizations can contribute content that models clinical reasoning and contextual explanation. The aim is not to offer diagnoses, but to recalibrate expectations regarding uncertainty and probability (Topol, 2015).

Such engagement should complement rather than replace clinical encounters. When professional communication aligns with clinical reasoning, it reduces the interpretative gap that fuels validation demands.

9.6 The limits of regulation and the need for adaptive practice

Regulatory responses to information overload must remain cautious. Restricting access to information is neither feasible nor desirable. Overregulation risks undermining autonomy without addressing the underlying dynamics.

More effective interventions occur at the level of practice adaptation. Clinicians require institutional support, training, and legal clarity to navigate validation encounters without defensive escalation, a pattern widely documented in the literature on overdiagnosis.

Recognizing validation encounters as a structural feature of contemporary medicine allows for deliberate response rather than reactive frustration. It reframes the problem as one of mediation rather than opposition.

Adaptive practice preserves professional judgment while respecting patient autonomy. It accepts information abundance as a given and focuses on restoring interpretative balance within the clinical encounter.

Chapter 10

Discussion

The analysis developed across the preceding sections supports a reexamination of how overdiagnosis is conceptualized in contemporary clinical practice. Rather than attributing it primarily to technological excess, patient behavior, or professional error, this analysis shows how escalation emerges from a relational configuration in which information overload, anxiety, and validation encounters interact. Within this framework, thresholds for concern, testing, and intervention are systematically altered, and what appears as diagnostic excess downstream often reflects interpretative shifts that occur well before discrete clinical decisions are made. Existing accounts of overdiagnosis and health anxiety are thus reinterpreted within a single relational framework that integrates clinical, psychological, and legal dimensions (Moynihan et al., 2012; Wegwarth & Gigerenzer, 2013; Starcevic & Berle, 2014).

10.1 Overdiagnosis as a relational outcome

Overdiagnosis is frequently described as the product of excessive testing or overly sensitive diagnostic tools. While such factors contribute to the phenomenon, they do not sufficiently explain the patterns observed in validation encounters.

In the scenarios examined here, overdiagnosis emerges upstream. It begins with the construction of preformed diagnostic narratives that reduce tolerance for uncertainty and elevate the demand for confirmation. Testing and intervention often follow as responses to this demand rather than as independent clinical judgments grounded in probability and expected benefit (Moynihan et al., 2012; Wegwarth & Gigerenzer, 2013).

This relational reading is consistent with earlier analyses of digitally mediated clinical responsibility. In prior work on medical decision making under emergency conditions, responsibility was shown to shift away from discrete clinical acts toward broader relational and infrastructural contexts shaped by technological mediation

(Torres Ponce & Arana, 2021). What appeared there as an emergency-driven reconfiguration of responsibility reappears here in a quieter form, sustained not by urgency but by repetition. The present analysis extends that logic beyond emergencies, showing how similar dynamics persist in routine care through information overload and narrative stabilization.

Responsibility, in this framework, is redistributed across the interaction rather than located in isolated actors. Patients and caregivers seek certainty within an informational environment that amplifies severity and obscures prevalence. Clinicians respond to anxiety, relational pressure, and legal ambiguity. Overdiagnosis arises from the convergence of these forces rather than from a single erroneous decision (Moynihan et al., 2012).

Viewing overdiagnosis as relational has practical implications. It shifts attention away from technological restraint alone and toward communicational and interpretative recalibration within the clinical encounter. Interventions that address only testing protocols are unlikely to succeed if narrative and emotional drivers remain unexamined.

10.2 Anxiety as a central mediator of clinical escalation

Anxiety occupies a pivotal position in the dynamics described. It mediates the relationship between information exposure and clinical behavior.

Across pediatric and adult contexts, anxiety lowers thresholds for action. It accelerates consultation, narrows interpretative frames, and reduces acceptance of observational strategies. Importantly, this anxiety is not inherently pathological. It represents a rational response to perceived risk under conditions of uncertainty and informational saturation (Starcevic & Berle, 2014).

Information overload intensifies this response by repeatedly exposing individuals to severe outcomes without proportional framing. Anxiety is then carried into the clinical encounter, where it shapes expectations and constrains dialogue. When left unaddressed, anxiety seeks resolution through validation. Testing and confirmation become substitutes for interpretative reassurance.

This substitution is unstable. Negative results provide only transient relief, while new uncertainties rapidly emerge. Recognizing anxiety as a mediator rather than as an obstacle reframes clinical responsibility. The task is not elimination of anxiety, but its containment and contextualization within clinical reasoning (Starcevic & Berle, 2014; McElroy & Shevlin, 2014).

10.3 The reconfiguration of epistemic authority in medicine

A central contribution of this work lies in its analysis of epistemic authority. Traditionally, clinical authority relied on asymmetry of knowledge combined with professional mediation. Information overload disrupts this asymmetry without removing the need for mediation.

Patients and caregivers now arrive with substantial informational capital. What they lack is not access to data, but the capacity to assign clinical weight. The result is not democratization of diagnosis, but competition between narratives that differ in coherence, emotional force, and perceived legitimacy (Lupton, 2013).

Validation encounters reveal a shift from interpretative authority to confirmatory authority. Clinicians are increasingly asked to certify meanings constructed elsewhere rather than to generate them through interaction. This shift places professional judgment under pressure and risks reducing the clinical encounter to an act of endorsement.

Reasserting epistemic authority does not require paternalism. It requires transparency about how medical reasoning differs from information aggregation. Authority is preserved through clarification of roles, not exclusion of patient input. Interpretation, not access, remains the distinctive contribution of clinical expertise (Cassell, 2004).

10.4 Clinical, legal, and psychological convergence

An interdisciplinary perspective makes it possible to observe convergence across clinical, legal, and psychological domains. Patterns identified in one field are reinforced by mechanisms in the others.

Clinically, validation encounters reshape consultation goals and increase escalation. Legally, they blur boundaries of responsibility and reasonable expectation, particularly when endorsement is inferred rather than explicit. Psychologically, they reinforce anxiety and narrative rigidity through repeated confirmation-seeking (Bensing, 2000; Moynihan et al., 2012).

Approaching these dimensions in isolation risks partial solutions. Addressing testing guidelines alone neglects anxiety. Focusing exclusively on communication ignores legal exposure. Clarifying legal standards without reference to clinical practice overlooks everyday realities of care.

The convergence observed here supports the claim that information overload functions as a systemic determinant rather than as a contextual variable. Its effects permeate multiple layers of healthcare practice simultaneously, shaping behavior, expectation, and responsibility.

10.5 Limits of the present analysis

This work adopts a conceptual and practice-based approach rather than a quantitative empirical design. Although grounded in clinical observation and established literature, it does not provide prevalence estimates or outcome metrics.

Cultural context and healthcare system organization may also modulate the intensity of validation encounters. The analysis reflects settings characterized by broad access to digital information and relatively low barriers to consultation. Other environments may exhibit different dynamics.

These limitations do not undermine the central argument. They define its scope. The aim has not been universal generalization, but articulation of a recognizable and increasingly frequent clinical configuration.

Future empirical research may quantify these patterns and explore variation across contexts. Qualitative studies may further examine patient and clinician experience. The framework proposed here offers a conceptual basis for such investigations while highlighting the need to address overdiagnosis at its interpretative roots rather than solely at its technological endpoints.

Chapter 11

Conclusions

This work has examined how medical information overload reshapes the clinical encounter and contributes to patterns of overdiagnosis that cannot be adequately explained by technological availability, patient behavior, or professional practice in isolation. We have argued that the central transformation lies in the emergence of validation encounters, in which clinicians are increasingly asked to confirm or exclude diagnostic narratives constructed prior to consultation (Moynihan et al., 2012; Cassell, 2004).

In this context, overdiagnosis does not originate primarily from excessive testing or from overly sensitive diagnostic tools. It arises earlier, at the level of interpretation. Information overload lowers tolerance for uncertainty and fosters the construction of coherent but clinically misweighted narratives. These narratives arrive at the consultation already stabilized and emotionally charged. Clinical decisions then unfold in response to this pressure rather than through an open diagnostic process grounded in probabilistic reasoning (Gigerenzer & Edwards, 2003; Wegwarth & Gigerenzer, 2013).

Pediatrics reveals this phenomenon with particular clarity. The mediated nature of symptom narration, the developmental variability of normality, and the emotional responsibility borne by caregivers create conditions in which information overload exerts amplified effects. Parental self-diagnosis emerges not as recklessness, but as an attempt to fulfill protective duties in an environment saturated with alarming content. The pediatric visit becomes a site where care, anxiety, and epistemic authority intersect (Bensing, 2000; Cassell, 2004).

Adult medicine confirms that this dynamic is not limited to pediatric settings. In adult patients, self-diagnosis operates through internalized narratives closely linked to health anxiety. The clinical encounter is frequently oriented toward exclusion of feared conditions rather than toward interpretative understanding. Testing and reassurance are used as tools for managing uncertainty rather than as instruments of diagnosis. Their limited durability helps explain the persistence and escalation observed in many

cases (Barsky & Ahern, 2004; Starcevic & Berle, 2014).

Across age groups, technologies function as intermediaries rather than as primary causes. Search engines, health portals, audiovisual platforms, and conversational systems shape attention, coherence, and confidence. They do not replace clinical reasoning, but they simulate its form while bypassing its constraints. The resulting illusion of understanding strengthens expectations of validation and reduces acceptance of probabilistic explanations (Lupton, 2013; Gigerenzer et al., 2007).

The legal analysis highlights that validation encounters challenge traditional assumptions about responsibility, consent, and reasonable expectations. When clinicians are positioned as endorsers of externally constructed narratives, professional liability risks expand in ways that are poorly aligned with clinical reality. This finding extends earlier work on digitally mediated medical responsibility, where responsibility was shown to migrate from discrete clinical acts toward broader relational and infrastructural contexts shaped by technological mediation (Torres Ponce & Arana, 2021). Preserving the boundary between public medical information and the medical act is therefore not merely a professional preference, but a juridical necessity (Cassell, 2004).

Psychological analysis clarifies that anxiety functions as a central mediator rather than as a peripheral disturbance. Health anxiety and hypochondriacal patterns do not arise solely from individual vulnerability. They are facilitated by informational environments that privilege severity, repetition, and narrative closure. Addressing these dynamics requires containment and reframing rather than dismissal or excessive reassurance (American Psychiatric Association, 2013; Starcevic & Berle, 2014).

The core contribution of this work lies in its relational framing. Overdiagnosis, validation demands, and clinical escalation are not technological side effects. They are emergent properties of an altered interaction between information abundance, human cognition, and professional authority. Recognizing this interaction enables responses that are clinically realistic, legally coherent, and ethically sustainable.

Effective intervention does not require restricting access to information or delegitimizing patient concern. It requires restoring the interpretative function of the clinical encounter. This includes explicit engagement with preformed narratives, proportional framing of risk, and structured management of uncertainty over time (Elwyn et al., 2016; Gigerenzer et al., 2007).

Medicine has always operated without absolute certainty. What has changed is the environment in which uncertainty is encountered. Preserving the integrity of clinical practice in this environment depends on reaffirming judgment over aggregation, interpretation over confirmation, and care over validation.

References

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). American Psychiatric Association. https://doi.org/10.1176/appi.books.9780890425596

Barsky, A. J., & Ahern, D. K. (2004). Cognitive behavior therapy for hypochondriasis: A randomized controlled trial. *JAMA, 291*(12), 1464–1470. https://doi.org/10.1001/jama.291.12.1464

Bensing, J. M. (2000). Bridging the gap: The separate worlds of evidence-based medicine and patient-centered medicine. *Patient Education and Counseling, 39*(1), 17–25. https://doi.org/10.1016/S0738-3991(99)00087-7

Blease, C., Kaptchuk, T. J., Bernstein, M. H., Mandl, K. D., Halamka, J. D., & DesRoches, C. M. (2019). Artificial intelligence and the future of primary care: Exploratory qualitative study of UK general practitioners' views. *Journal of Medical Internet Research, 21*(3), e12802. https://doi.org/10.2196/12802

Cassell, E. J. (2004). *The nature of suffering and the goals of medicine* (2nd ed.). Oxford University Press.

Elwyn, G., Frosch, D. L., & Kobrin, S. (2016). Implementing shared decision-making: Consider all the consequences. *Implementation Science, 11*, Article 114. https://doi.org/10.1186/s13012-016-0480-9

Gigerenzer, G., & Edwards, A. (2003). Simple tools for understanding risks: From innumeracy to insight. *BMJ, 327*(7417), 741–744. https://doi.org/10.1136/bmj.327.7417.741

Gigerenzer, G., Gaissmaier, W., Kurz-Milcke, E., Schwartz, L. M., & Woloshin, S. (2007). Helping doctors and patients make sense of health statistics. *Psychological Science in the Public Interest, 8*(2), 53–96. https://doi.org/10.1111/j.1539-6053.2008.00033.x

Kleinman, A. (1988). *The illness narratives: Suffering, healing, and the human condition*. Basic Books.

Kruglanski, A. W., & Webster, D. M. (1996). Motivated closing of the mind: "Seizing" and "freezing." *Psychological Review, 103*(2), 263–283. https://doi.org/10.1037/0033-295X.103.2.263

Lupton, D. (2013). The digitally engaged patient: Self-monitoring and self-care in the digital health era. *Social Theory & Health, 11*(3), 256–270. https://doi.org/10.1057/sth.2013.10

Lupton, D. (2015). *Digital sociology*. Routledge.

McElroy, E., & Shevlin, M. (2014). The development and initial validation of the Cyberchondria Severity Scale (CSS). *Journal of Anxiety Disorders, 28*(2), 259–265. https://doi.org/10.1016/j.janxdis.2013.12.007

McMullan, M. (2006). Patients using the Internet to obtain health information: How this affects the patient–health professional relationship. *Patient Education and Counseling, 63*(1–2), 24–28. https://doi.org/10.1016/j.pec.2005.10.006

Moynihan, R., Doust, J., & Henry, D. (2012). Preventing overdiagnosis: How to stop harming the healthy. *BMJ, 344*, e3502. https://doi.org/10.1136/bmj.e3502

Nickerson, R. S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. *Review of General Psychology, 2*(2), 175–220. https://doi.org/10.1037/1089-2680.2.2.175

Shapiro, J. (2011). Illness narratives: Reliability, authenticity, and the empathy gap. *Family Medicine, 43*(4), 249–251.

Starcevic, V., & Berle, D. (2014). Cyberchondria: Towards a better understanding of excessive health-related Internet use. *Expert Review of Neurotherapeutics, 14*(2), 205–213. https://doi.org/10.1586/14737175.2014.884610

Topol, E. (2015). *The patient will see you now: The future of medicine is in your hands*. Basic Books.

Torres Ponce, M. E., & Arana, M. N. (2021). *Digital medicine in health emergencies: Redefining clinical and legal responsibility*. Zenodo. https://doi.org/10.5281/zenodo.17506876

Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science, 185*(4157), 1124–1131. https://doi.org/10.1126/science.185.4157.1124

Wegwarth, O., & Gigerenzer, G. (2013). Overdiagnosis and overtreatment: Evaluation of what physicians tell their patients about screening harms. *JAMA Internal Medicine, 173*(22), 2086–2088. https://doi.org/10.1001/jamainternmed.2013.10363

Welch, H. G., Schwartz, L. M., & Woloshin, S. (2011). *Overdiagnosed: Making people sick in the pursuit of health*. Beacon Press.